

## Abstract

In a wireless communication system dealing with a plurality of frequency bands such as 5.2 GHz band and 2.4 GHz band, without a disturbance from another wireless communication system or the like and abnormalities such as stop of a moving picture and disturbance of a picture, a large volume of data can be securely and smoothly transmitted on real time basis.

In a frequency band (5.2 GHz band) communicable at higher transmission rates, unused radio channels free of a disturbing wave are detected in steps 101 to 103. In process routine 200, it is detected whether or not received field strengths exceed a threshold value in decreasing order from higher transmission rates on the detected radio channels. A communication is started at a transmission rate of which the received field strength reaches or exceeds the threshold value.